C L A I M S

1. A cross polarized wave interference eliminating system comprising means, on a receiving side, which includes interference compensators which generate interference compensation signals for respectively compensating for two orthogonal cross polarized components, generates transmission power control information for each polarized wave to individually improve an interference compensation characteristic for each polarized wave in accordance with an interference state, and notifies a transmitting side of the information, characterized by comprising

interference compensation amount adjusting means for, on the receiving side, adjusting an interference compensation amount of a self-polarized wave on the basis of the transmission power control information for each of the polarized waves.

2. A cross polarized wave interference eliminating system according to claim 1, characterized in that said interference compensation amount adjusting means comprises a coefficient controller which generates and outputs, on the basis of the transmission power control information for each of the polarized waves, a weighting coefficient corresponding to a cross polarized wave interference amount which can occur in accordance with a reception level difference between the two polarized waves, and an interference compensator which

filters a reception output on a different polarization side with a specific frequency component, and outputs a compensation signal having a level corresponding to a weighting coefficient from said coefficient controller and a phase opposite to an interference component.

3. A cross polarized wave interference eliminating system according to claim 2, characterized in that said interference compensator includes a transversal filter which filters a reception output on the different polarization side on the basis of a tap coefficient corresponding to a cross polarized wave interference amount, and a weighting circuit which adjusts a level of a compensation signal output from said transversal filter by increasing/decreasing a value of the tap coefficient in accordance with the weighting coefficient.

4. A cross polarized wave interference eliminating system according to claim 2, characterized in that said interference compensator includes a filter which filters a reception output on the different polarization side with a specific frequency component, and a weighting circuit which adjusts a level of a compensation signal output from said filter by increasing/decreasing an output from said filter on the basis of the weighting coefficient.

5. A cross polarized wave interference eliminating method used in a cross polarized wave

interference eliminating system comprising means, on a receiving side, which includes interference compensators which generate interference compensation signals for respectively compensating for two orthogonal cross polarized components, generates transmission power control information for each polarized wave to individually improve an interference compensation characteristic for each polarized wave in accordance with an interference state, and notifies a transmitting side of the information, characterized by comprising the step of, on the reception side, adjusting an interference compensation amount of a self-polarized wave on the basis of the transmission power control information for each of the polarized waves.